

BOAT Name CURADDAU Sail Nr ECU-1494	GPH 575,3	HULL Length Overall 12,350m Maximum Beam 3,646m Displacement 7.140kg Draft 2,510m IMS Reg. Division Cruiser/Racer Dynamic Allowance 0,031% Fwd Accommodation Yes Hull Construction Cored Carbon Rudder No Crew Arm Extension
GENERAL Class X-41 Designer JEPPESEN Builder X YACHTS Series 01/2006 Age 01/2008 Age Allowance 0,357% Offset File X41.OFF - 23/02/2015 06:29:08 p.m. Measurement by P. GUTIERREZ - 02/10/2017		IMSL 11,204m VCGD -0,117m Sink 23,25kg/mm RL 10,210m VCGM -0,148m WS 31,19m² LSMO 11,119m Displacement/Length ratio 5,1940



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2017
ORC International
Certificate

Rating Office
Federación Ecuatoriana
de Vela
Patricio D. Gutiérrez - RO
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SCORING OPTIONS	COASTAL / LONG DISTANCE			WINDWARD / LEEWARD		
	Low	Medium	High	Low	Medium	High
Time On Distance	559,4			625,3		
Time On Time	1,0725			1,0795		
Triple Number	Low	Medium	High	Low	Medium	High
Time on Distance	662,6	509,1	450,2	860,4	628,7	540,7
Time on Time	1,0187	1,3259	1,4995	0,7845	1,0737	1,2483

TIME ALLOWANCES	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat VMG	975,6	805,5	704,5	660,8	641,1	629,8	614,6
52°	636,6	531,9	480,6	463,2	456,0	452,1	444,4
60°	598,5	505,5	466,6	450,3	443,0	438,6	431,2
75°	567,4	487,7	456,7	437,5	423,1	415,0	407,7
90°	568,8	487,4	452,2	436,5	417,5	399,7	380,1
110°	590,5	487,5	448,9	423,8	402,5	391,0	369,4
120°	607,7	498,5	455,0	428,6	401,4	380,1	352,3
135°	673,5	544,0	477,7	447,7	423,4	398,0	346,4
150°	801,1	637,0	537,2	478,4	449,5	426,9	380,5
Run VMG	925,0	735,5	620,3	546,6	498,4	462,5	417,4

Certificate
Number **149401**
ORC Ref **ECU00005606**
Issued On **04/10/2017**
VPP Ver. **2017 1.00**
Valid until **31/03/2018**

Crew Weight
Declared **823kg**
Default* **801kg**
Non Manual Pwr **No**

Special Scoring
ToD ToT
Non Spin GPH **605,8 0,9904**
Non Spin OSN **589,3 1,0182**

Selected Courses	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Windward / Leeward	950,3	770,5	662,4	603,7	569,7	546,1	516,0
Circular Random	794,8	640,8	558,1	509,8	479,6	459,2	431,7
Ocean for PCS	975,9	752,6	626,5	549,4	499,1	463,6	413,6
Non Spinnaker	849,0	679,4	587,0	532,2	497,9	474,9	444,9

Sails Limitations	Headsails	Spinnakers
	6	4

Velocity Prediction in Knots for True Wind Speeds	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Wind Velocity	6 kt	8 kt	10 kt	12 kt	14 kt	16 kt	20 kt
Beat Angles	43,1°	42,0°	41,1°	39,0°	38,4°	37,7°	37,2°
Beat VMG	3,69	4,47	5,11	5,45	5,62	5,72	5,86
52°	5,65	6,77	7,49	7,77	7,89	7,96	8,10
60°	6,01	7,12	7,72	7,99	8,13	8,21	8,35
75°	6,34	7,38	7,88	8,23	8,51	8,67	8,83
90°	6,33	7,39	7,96	8,25	8,62	9,01	9,47
110°	6,10	7,38	8,02	8,49	8,94	9,21	9,75
120°	5,92	7,22	7,91	8,40	8,97	9,47	10,22
135°	5,35	6,62	7,54	8,04	8,50	9,05	10,39
150°	4,49	5,65	6,70	7,52	8,01	8,43	9,46
Run VMG	3,89	4,89	5,80	6,59	7,22	7,78	8,63
Gybe Angles	141,9°	147,7°	149,9°	155,6°	169,4°	180,0°	180,0°

Class Division Length
CDL = **10,708**

Storm Sails Areas
Heavy Weather Jib **39,65**
Storm Jib (JL=11,14) **14,68**
Storm Trysail **15,52**

Owner
JOAQUIN HOLZAPFEL
GUAYAQUIL


I certify that I understand my responsibilities under ORC Rules and Regulations

Signature

BOAT	
Name CURADDAU	Sail Nr ECU-1494
File I1494 CON LASTRE	Data in meters/kilograms

INCLINING TEST AND FREEBOARDS		
Inclining Test Current Inclining		
Flotation date 27/09/2017		SG 1,0253
FFM 1,425	FF 1,426	SFFP 0,200
FAM 1,089	FA 1,089	SAFP 11,995
W1 110,0	PD1 475,2	WD 11,210
W2 110,0	PD2 475,3	GSA 1,0
W3 110,0	PD3 471,7	RSA 1,0
W4 110,0	PD4 475,0	PLM 9000,0
LCF from stem on CL / on sheer		6,926 / 7,134
Maximum beam station from stem		8,432
RM Measured		204,7kg·m
RM Default		204,7kg·m
Limit of positive stability / Stab.Index		126,4° / 130,5
Freeboard at mast at 5,195		1,196

RIG			
Forestay Tension Aft	Spreaders 2		
Inner Stay None Fitted	Runners 0		
Carbon Mast Yes	Jumper Struts None		
Taper Hollows No	Jib Furler No		
Fiber Rigging No	Main Furler No		
Lenticular Rigging No	Without Backstay No		
Articulated Bowsprit No			
P 16,170	E 5,485	MDT1 0,130	MW 0,255
IG 17,050	J 4,900	MDL1 0,255	GO 0,280
ISP 17,075	SFJ 0,295	MDT2 0,120	BD 0,270
BAS 1,880	SPL 5,160	MDL2 0,200	MWT
FSP 0,075	TPS	TL 1,090	MCG




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IMS Measurement Certificate

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MIZZEN RIG AND SAILS	
N/A	

PROPELLER		
Installation Strut	PRD 0,450	
Type Folding 2 blades	PBW 0,118	
Twin Screw No	PIPA 0,0040	
ST1 0,065	ST3 0,180	ST5 0,320
ST2 0,180	ST4 0,110	EDL 1,890

COMMENTS	

MOVEABLE BALLAST	
N/A	

CENTERBOARD	
N/A	

SAILS (Maximum Areas)									
Mainsail	MHB	MUW	MTW	MHW	MQW	Area	Area (r)	Formula	
	0,210	1,15	2,04	3,49	4,54	52,27	53,21	P/8 · (E + 2·MQW+ 2·MHW + 1.5·MTW + MUW + 0.5·MHB)	
Symmetric	SLU	SLE	SL	SHW	SFL			SL · (SFL + 4·SHW) / 6	
	17,60	17,60	17,60	8,74	8,42	127,25			
Asymmetric	SLU	SLE	SL	SHW	SFL	Area (r)		AS · (SFL + 4·SHW) / 6	
	16,63	15,67	16,15	6,38	8,50	91,57 104,50			

HEADSAILS												
Area = 0.1125·HLU · (1.445·HLP + 2·HQW + 2·HHW + 1.5·HTW + HUW + 0.5·HHB)												
HHB	HUW	HTW	HHW	HQW	HLP	HLU	Area	Btn	Fly	Meas.Date	Material	Comment
0,14	0,80	1,48	2,66	3,87	5,12	16,81	44,53	Y	N	26/09/2017	Carbon	NEGRO
0,13	0,80	1,47	2,63	3,82	5,10	16,83	44,19	Y	N	26/09/2017	Carbon	NEGRO

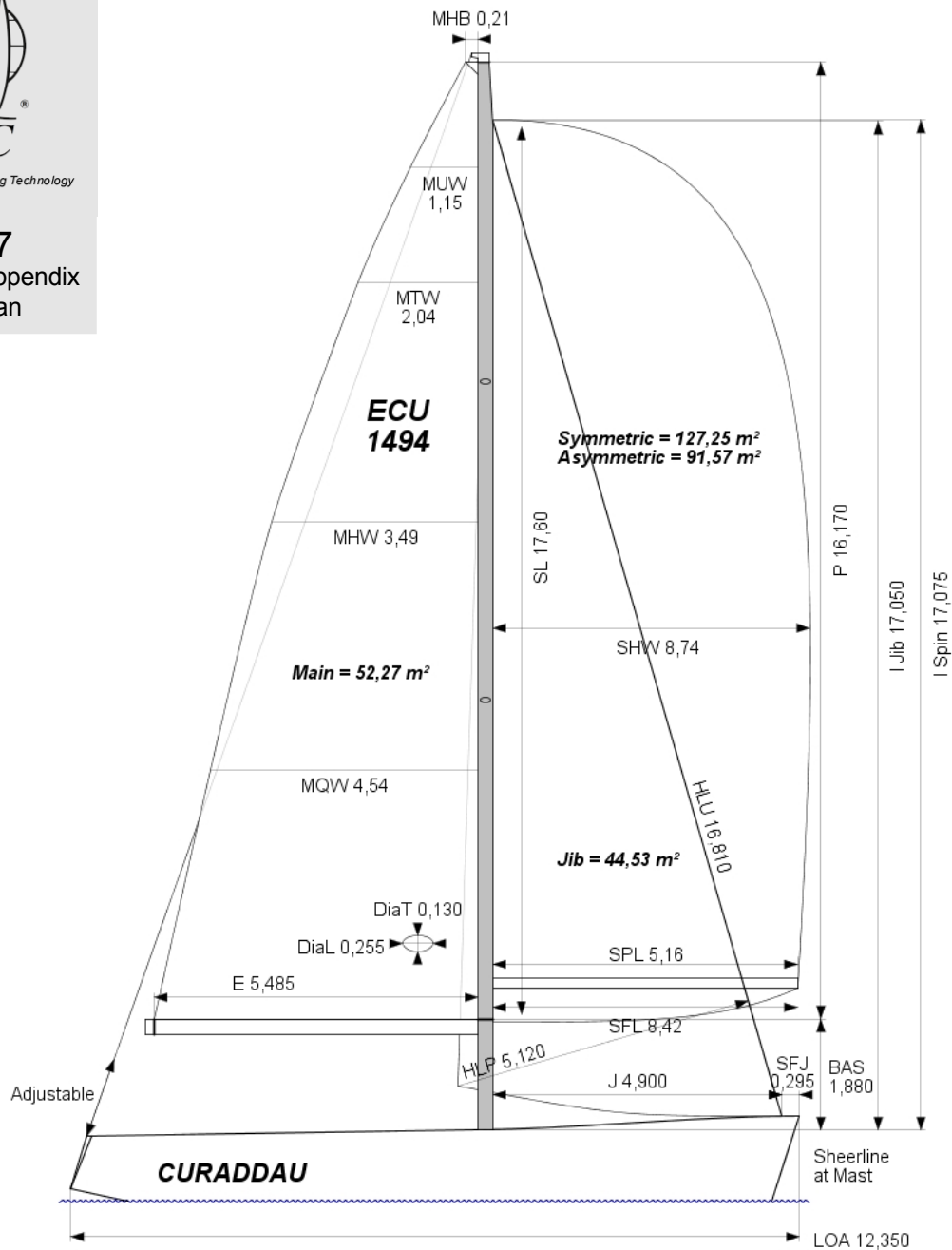
MEASUREMENT INVENTORY				
Measurer PATRICIO GUTIERREZ P G				
Date 27/09/2017				
Comment				
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>
<i>Id</i>	<i>Item</i>	<i>Maker</i>	<i>Model</i>	
C5	Engine	VOLVO PENTA	40 HP	
<i>Id</i>	<i>Item</i>	<i>Weight Description</i>		

MEASUREMENT INVENTORY						
<i>Id</i>	<i>Item</i>	<i>Tank Use</i>	<i>Tank Type</i>	<i>Capcty</i>	<i>Dist.</i>	<i>VCG Condtn Description</i>
A	Tank	PETROLEO	INOX	90,0	6,05	0,00 44,0
B	Tank	ACQUA	PVC	210,0	5,90	0,00 0,0
<i>Id</i>	<i>Item</i>	<i>Weight</i>	<i>Distance</i>	<i>VCG Description</i>		
C6	Ballast	181,4	7,30	-0,20 8 BARRAS DE PLOMO		
C8	Ballast	62,9	5,00	-0,20 6 PANES DE PLOMO		
C7	Ballast	72,3	5,45	-0,20 6 TUBOS DE PLOMO		
E8	Battery	70,0	4,90	0,00 2 BAT. GEL GRANDES ESTRIBOR		
C4	Battery	20,0	7,90	0,00 1 BAT. 12V - 70 AMP		



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Sail Plan



SAILS INVENTORY

MAINSAIL (1)

Id	MHB	MUW	MTW	MHW	MQW	Area	Measurer	Meas.Date	Manufacture	Material	Comment
B	0,210	1,15	2,04	3,49	4,54	52,27	P GUTIERREZ	26/09/2017	DOYLE	Technora	NEGRA

HEADSAILS (2)

Id	HHB	HUW	HTW	HHW	HQW	HLP	HLU	Ovrlp	Area	Btn	Fly	Measurer	Meas.Date	Manufacture	Material	Comment
G1 L	0,14	0,80	1,48	2,66	3,87	5,12	16,81	104%	44,53	Y	N	P	26/09/2017	DOYLE	Carbon	NEGRO
G1 M	0,13	0,80	1,47	2,63	3,82	5,10	16,83	104%	44,19	Y	N	P	26/09/2017	DOYLE	Carbon	NEGRO

SYMMETRIC SPINNAKERS (2)

Id	SLU	SLE	SL	SHW	SFL	Area	Measurer	Meas.Date	Manufacture	Material	Comment
S2	17,60	17,60	17,60	8,74	8,42	127,25	P GUTIERREZ	26/09/2017	DOYLE	Nylon	BLANCO
S3	17,50	17,50	17,50	8,75	8,50	126,88	P GUTIERREZ	26/09/2017	NORTH	Nylon	NEGRO

ASYMMETRIC SPINNAKERS (1)

Id	SLU	SLE	SL	SHW	SFL	Area	Kind	Measurer	Meas.Date	Manufacture	Material	Comment
A0	16,63	15,67	16,15	6,38	8,50	91,57	asym	DECLARACION	02/10/2017	NORTH	Unknown	